

Tobamovirus Expression Vectors

TMV



TMV-Expression Vector

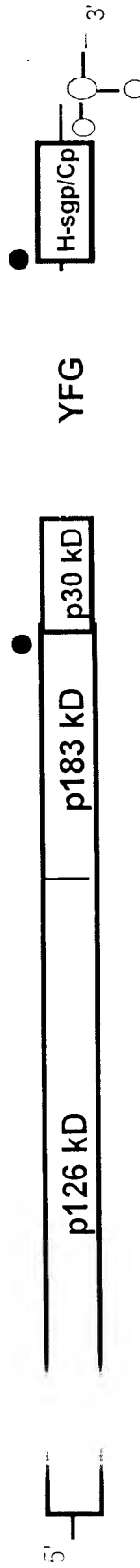


FIGURE 1

Tobamovirus Vector for rGal-A Expression

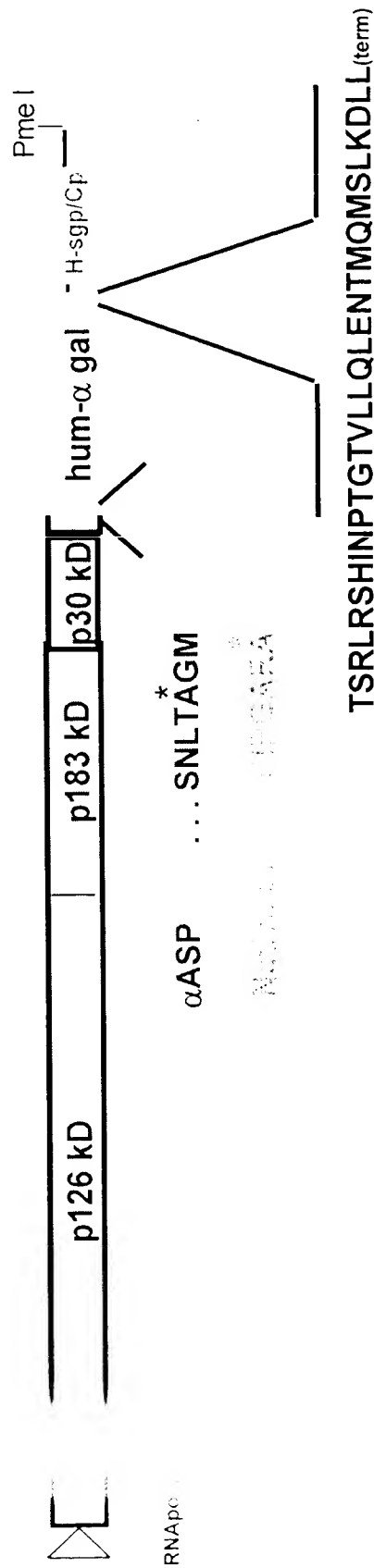


FIGURE 2

Accumulation and Activity of WT rGal-A

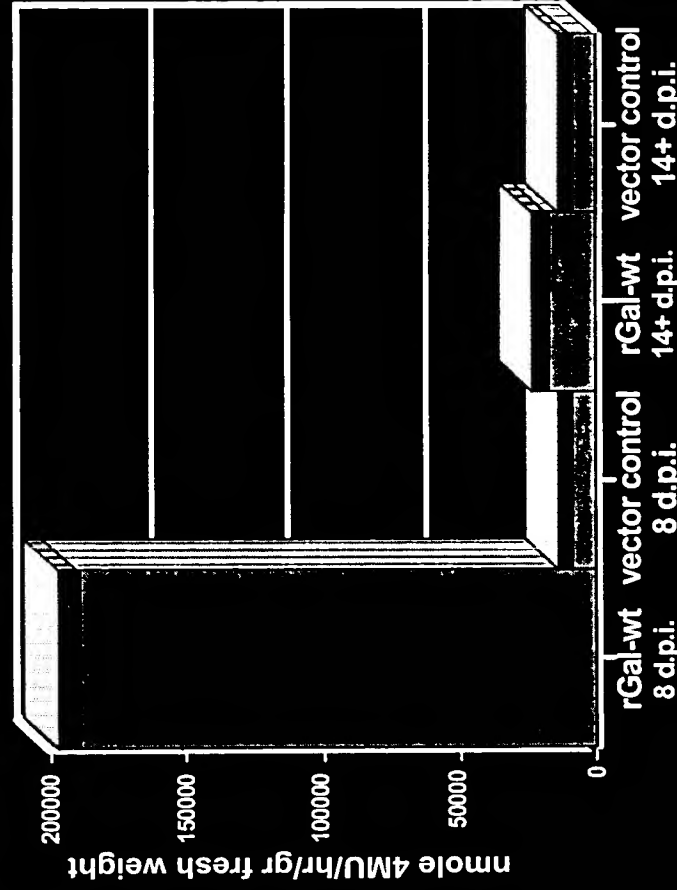
A.

rGAL-A hGAL-A
1 2 100 ng C.V.



Western Analysis
total plant soluble extract
anti human GAL-A sera

B.



IF ☒ Homogenate

Fig. 3

Accumulation and Activity of WT and ER-Targeted rGal-A

A.

Uninf. rGAL-A rGAL-A-R



Mr kDa

45 —

1 2 3

Western Analysis
total plant soluble extract
anti human GAL-A sera

B.

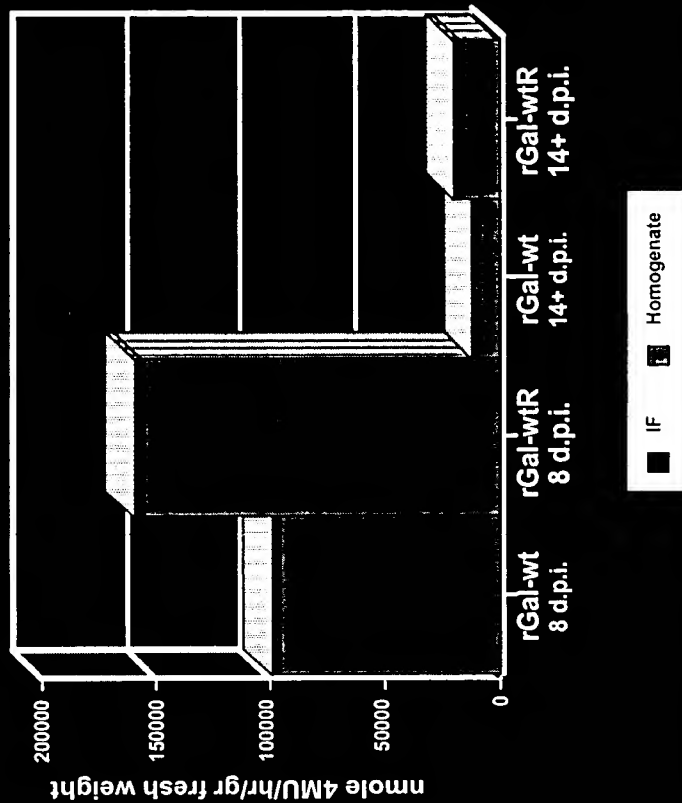


Fig. 4

Carboxy-Modifications to rGal-A

	-30	-20	-10
WT	TSRLRSHINPTGTVLLQ	LENTMQMSLKDLL	
WTR	TSRLRSHINPTGTVLLQ	LENTMQMSLKDLLSEKDI	
? 4	TSRLRSHINPTGTVLLQ	LENTMQMSL	
? 4R	TSRLRSHINPTGTVLLQ	LENTMQMSLSEKDEL	
? 8	TSRLRSHINPTGTVLLQ	LENTM	
? 8R	TSRLRSHINPTGTVLLQ	LENTMSEKDEL	
? 12	TSRLRSHINPTGTVLLQ	L	
? 12R	TSRLRSHINPTGTVLLQ	LSEKDEL	
? 25	TSRLR		
? 25R	TSRLRSEKDEL		
Control virus (GFP, AMP, IFN γ)			

* potential CTPP cleavage (Gene 58:177,1987).

Fig. 5

Western Blot Analysis of Carboxy-modified rGal-A

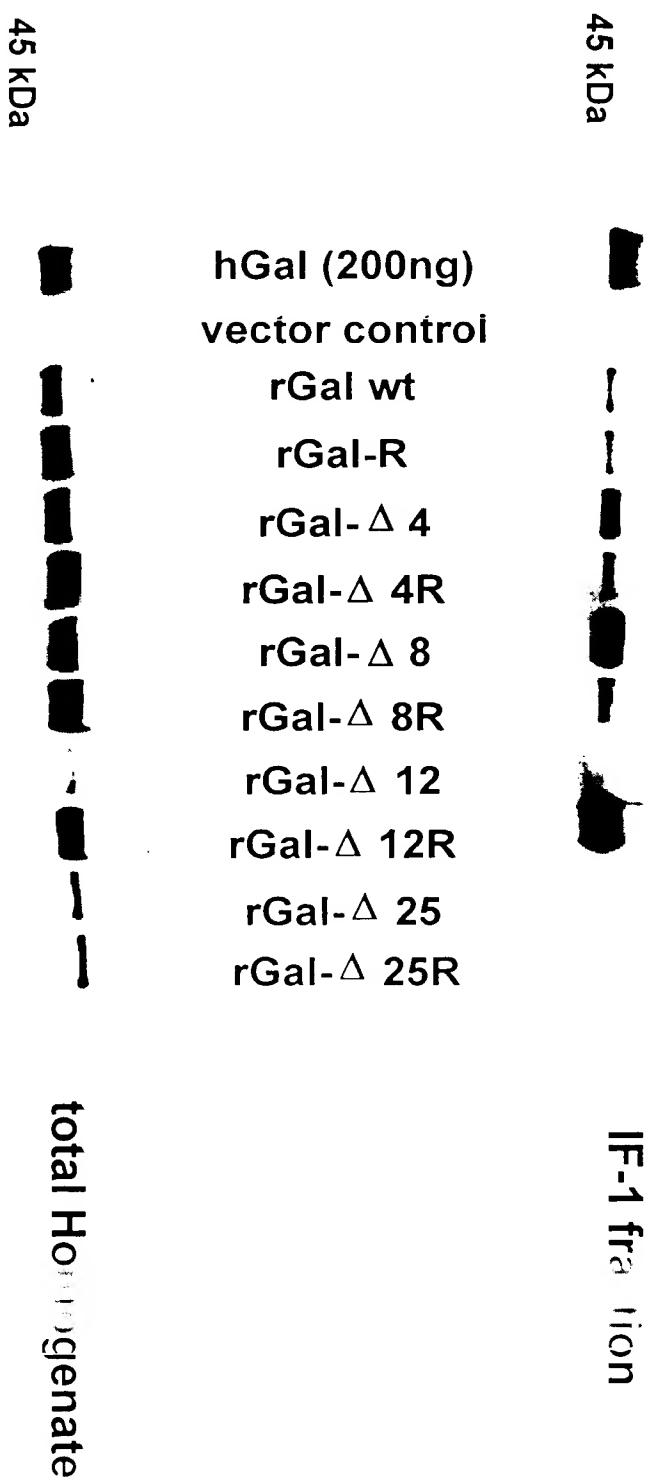
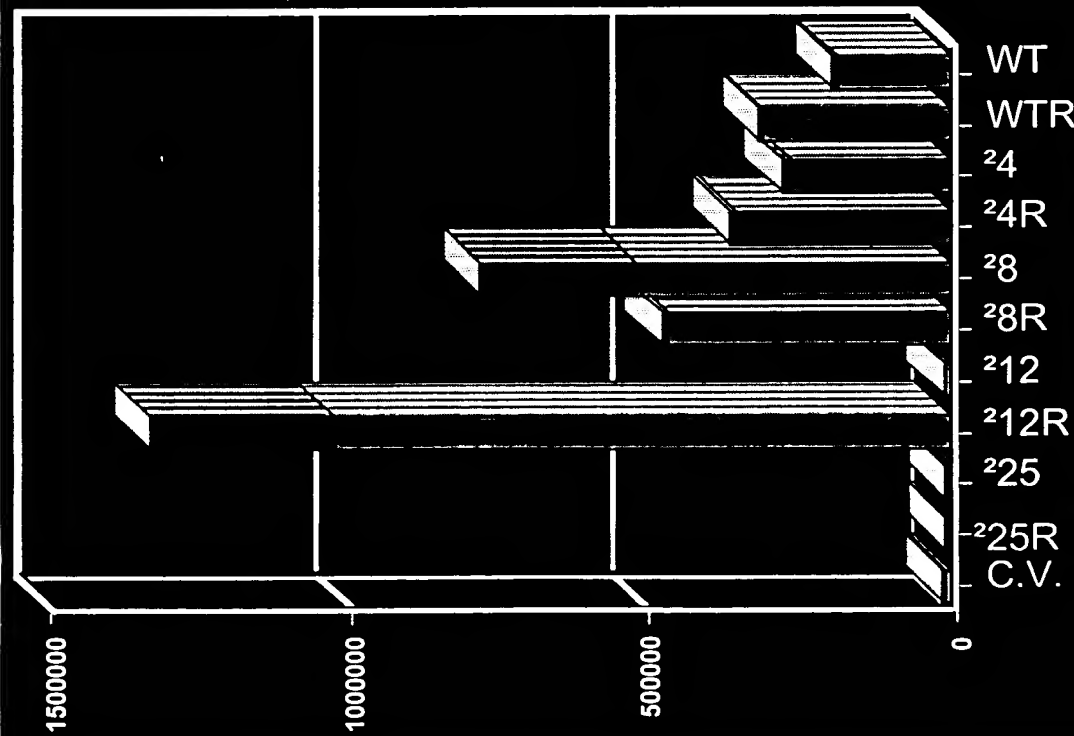


Fig. 6

Enzymatic Activity of Carboxy-Modified rGal-A



	-30	-20	-10
WT	* TSRLRSHINPTGTVLLQLENTMQMSLKDLL		
WTR	TSRLRSHINPTGTVLLQLENTMQMSLKDLLSEKDEL		
24	TSRLRSHINPTGTVLLQLENTMQMSL		
24R	TSRLRSHINPTGTVLLQLENTMQMSLSEKDEL		
28	TSRLRSHINPTGTVLLQLENTM		
28R	TSRLRSHINPTGTVLLQLENTMSEKDEL		
212	TSRLRSHINPTGTVLLQL		
212R	TSRLRSHINPTGTVLLQLSEKDEL		
225	TSRLR		
225R	TSRLRSEKDEL		
Control virus (GFP, AMP, IFN γ)			

* potential CTPP cleavage (Gene 58:177,1987).

■ IF ■ Homogenate

Fig. 7

Coomassie Stain - IF

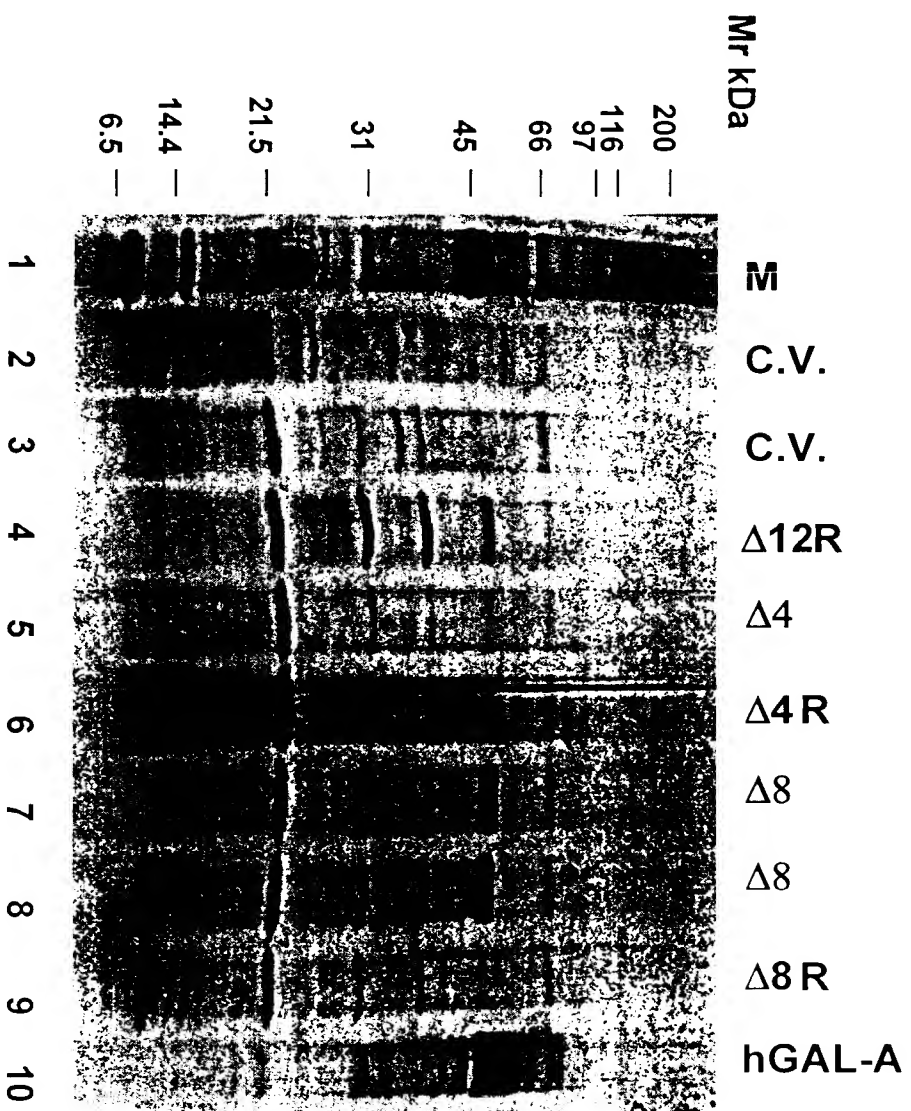


Fig. 8

Coomassie Stain - IF

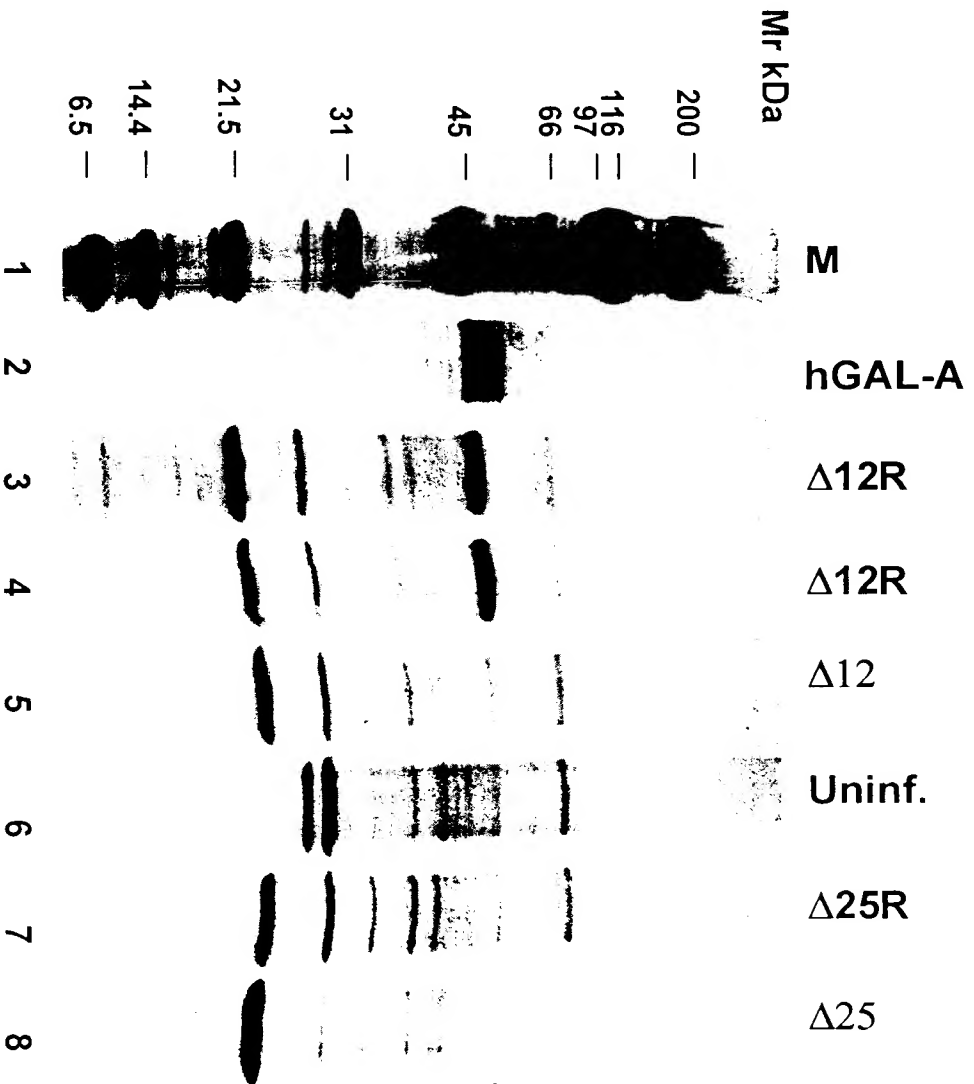
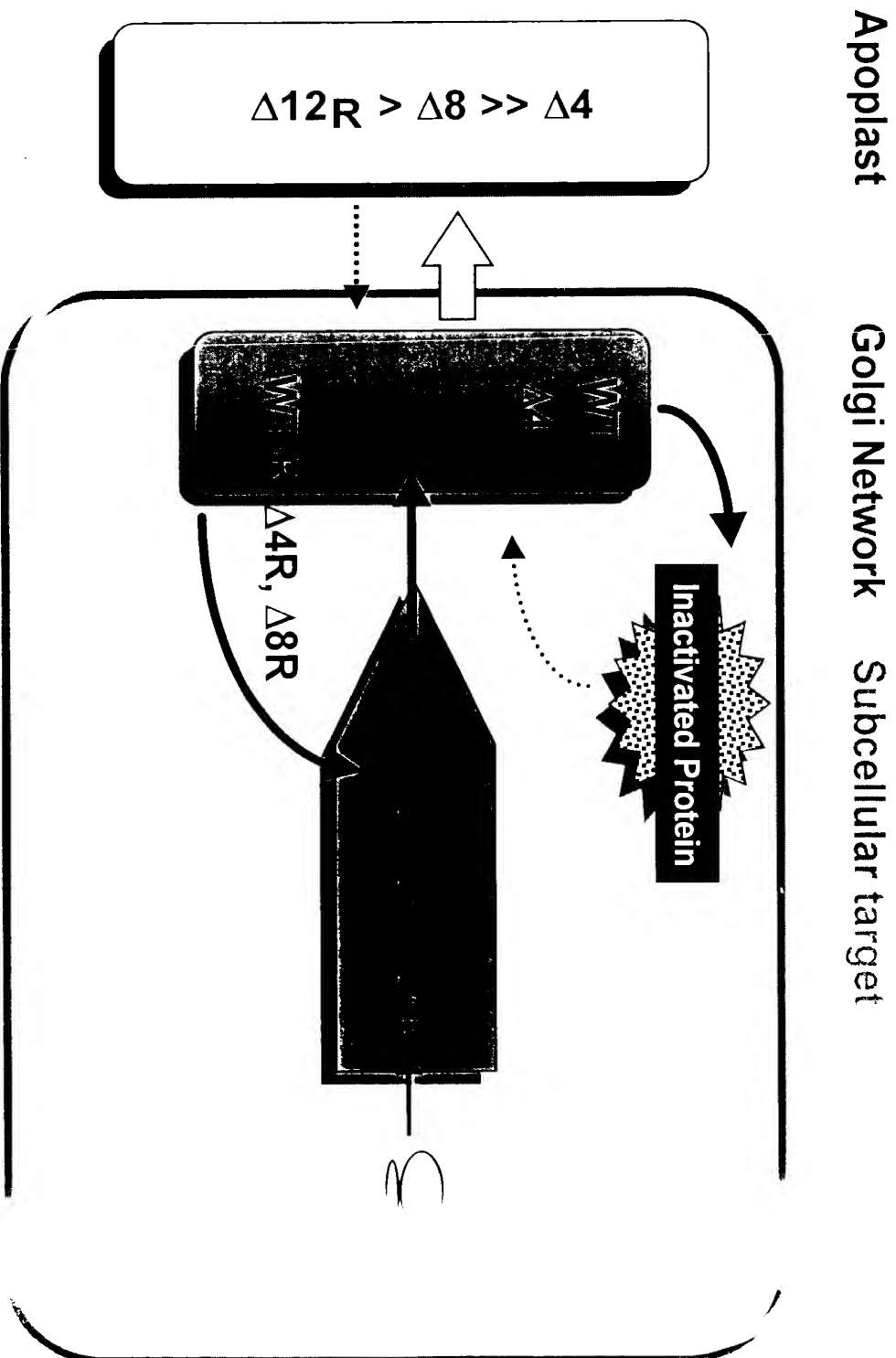


Fig. 9

Schematic of rGal-A Secretion



Endoplasmic reticulum

FIGURE 10

FIGURE 11

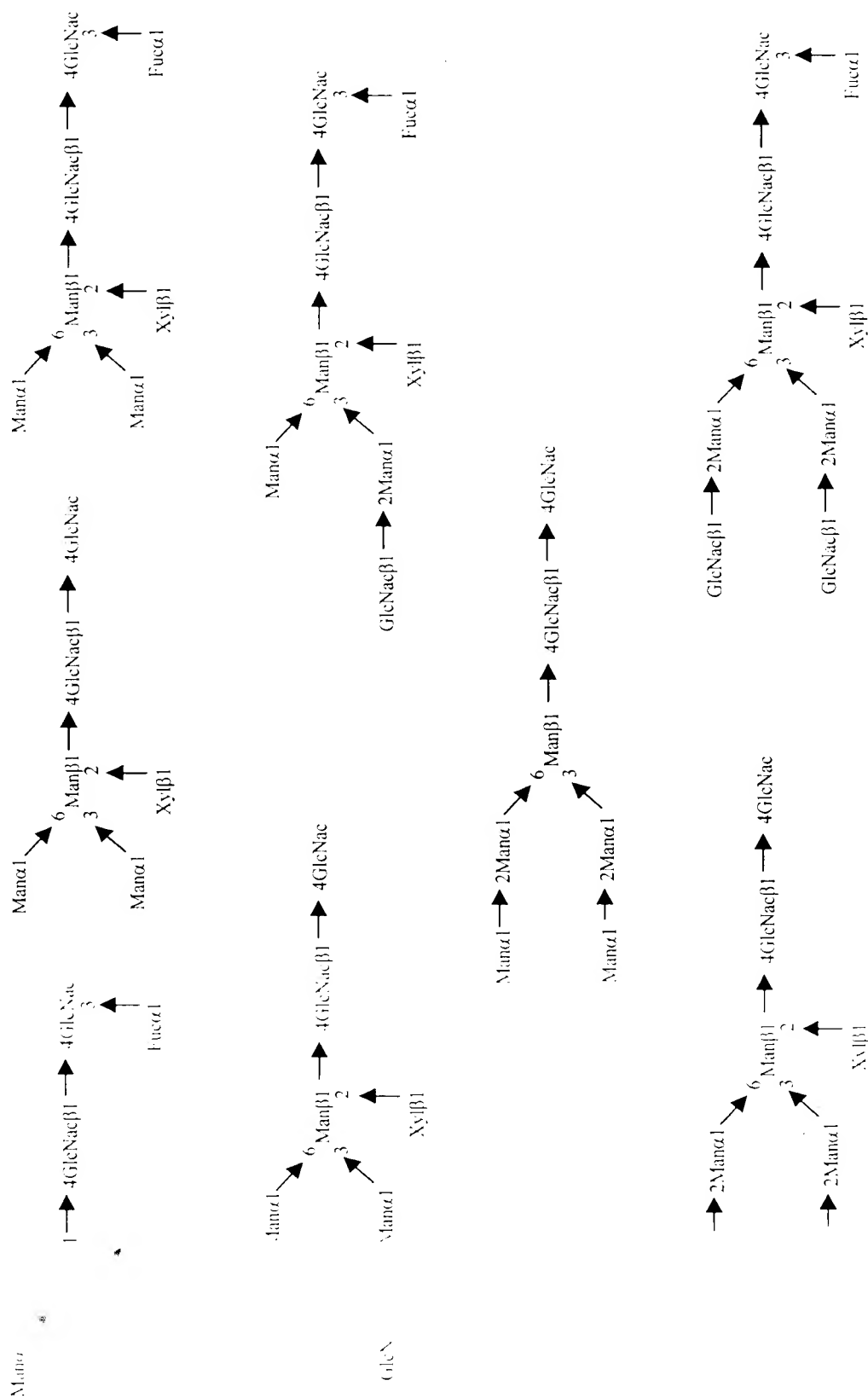


FIGURE 12

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FIGURE 13

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